

WHAT IS CLAIMED IS:

1. An image processing apparatus, comprising:

a first converting unit to synthesize first code data including a plurality of code data sets where image data of a plurality of static images are compressed and encoded, and to convert the first code data into second code data which are compressed and encoded to be a single code data sequence where a motion image aligns the static images in chronological order as consecutive frames; and

a second converting unit to convert the second code data into the first code data.

2. The image processing apparatus as claimed in claim 1, wherein the first code data are code data compressed and encoded in accordance with a JPEG 2000 algorithm and the second code data are code data compressed and encoded in accordance with a Motion JPEG 2000.

3. The image processing apparatus as claimed in claim 1, further comprising:

a decompressing unit to decompress the first and second code data; and

a displaying unit to display the frames showing image data in chronological order at a display unit after the first and second code data are decompressed.

4. The image processing apparatus as claimed in claim 1, further comprising a first accepting unit to accept a request for converting the first code data into the second code data from a user,

wherein the first converting unit converts the first code data into the second code data when the first accepting unit accepts the request.

5. The image processing apparatus as claimed in claim 1, further comprising a detecting unit to detect empty capacity of a storage unit storing the first and second code data,

wherein the first converting unit converts the first code data into the second code data when it is determined that the empty capacity detected by the detecting unit is lower than a predetermined reference value.

6. The image processing apparatus as claimed in claim 1, wherein the first converting unit selects code data having a predetermined resolution from the first code data, reduces the selected code data, and converts the reduced first code data into the second code data, to integrate a plurality of the static images into one of the frames.

7. The image processing apparatus as claimed in claim 6, further comprising a second accepting unit to accept a request for converting the reduced first code data into the second code data where the static images are integrated in one of the frames, from a user, wherein the first converting unit converts the reduced first code data into the second code data when the second accepting unit accepts the request.

8. The image processing apparatus as claimed in claim 1, further comprising a detecting unit to detect empty capacity of a storage unit storing the first and second code data,

wherein the first converting unit converts the first code data into the second code data when it is determined that the empty capacity detected by the detecting unit is lower than a predetermined reference value.

9. The image processing apparatus as claimed in claim 7, wherein:
the second accepting unit accepts a request of an integration degree from the user;
and

the first converting unit determines a number of the static images to form each of the frames based on the integration degree accepted by the second accepting unit.

10. The image processing apparatus as claimed in claim 8, further comprising a

third converting unit to convert current second code data into further second code data to increase the number of the static images forming each of the frames when the empty capacity becomes lower than the predetermined reference value.

11. The image processing apparatus as claimed in claim 1, wherein the first converting unit converts each of the code data sets being the first code data with respect to only a specific area of a screen into the second code data.

12. The image processing apparatus as claimed in claim 11, wherein the first converting unit determines the specific area as a Region of Interest.

13. The image processing apparatus as claimed in claim 11, further comprising a third accepting unit accepting an instruction indicating the specific area from a user, wherein the first converting unit converts the first code data into the second code data for only the specific area indicated when the third accepting unit accepts the instruction.

14. The image processing apparatus as claimed in claim 2, wherein the first converting unit converts each of the code data sets being the first code data into the second code data with respect to only a specific area of a screen, in that a progressive order is established for the code data sets being the first code data so that the second code data have the same progressive order for the frames.

15. The image processing apparatus as claimed in claim 1, further comprising a fourth accepting unit accepting an indication of a specific frame of the image data displayed by a displaying unit from a user,

wherein the second converting unit converts the second code data into the first code data for the specific frame when the fourth accepting unit accepts the indication.

16. The image processing apparatus as claimed in claim 15, wherein the displaying unit displays a specific area of each of the frames of the image data.

17. An imaging apparatus, comprising:
an image pickup device imaging a static image;
a compressing unit to compress and encode image data imaged by the imaging pickup device;
a storage unit to store code data being compressed; and
an information processing unit to process the code data as first code data, wherein the information processing unit comprises:
a first converting unit to synthesize the first code data including a plurality of code data sets where image data of a plurality of static images are compressed and encoded, and convert the first code data into second code data which are compressed and encoded to be a single code data sequence where a motion image aligns the static images in chronological order as consecutive frames; and
a second converting unit to convert the second code data into the first code data.

18. An article of manufacture having one or more recordable media storing instructions thereon which, when executed by a computer, cause the computer to process an image using a method comprising:
synthesizing first code data including a plurality of code data sets where image data of a plurality of static images are compressed and encoded, and converting the first code data into second code data which are compressed and encoded to be a single code data sequence where a motion image aligns the static images in chronological order as consecutive frames; and
converting the second code data into the first code data.

19. An article of manufacture having one or more recordable media storing instructions thereon which, when executed by a computer, cause the computer to process an

image using a method comprising:

synthesizing first code data including a plurality of code data sets where image data of a plurality of static images are compressed and encoded, and converting the first code data into second code data which are compressed and encoded to be a single code data sequence where a motion image aligns the static images in chronological order as consecutive frames; and

converting the second code data into the first code data.

20. An imaging apparatus, comprising:

an image pickup device to image a static image;

a storage unit to store code data being compressed;

a compressing circuit to generate image data by compressing and encoding the static image imaged by the imaging pickup device and store the image data as first code data in the storage unit;

a code sequence converting circuit to synthesize the first code data including a plurality of sets of the first code data read from the storage unit, convert the first code data into second code data which are compressed and encoded to be a single code data sequence in that a motion image aligns the static images in chronological order as consecutive frames, and convert the second code data into the first code data; and

a decompressing circuit to decompress and decode the code data of the first code data or the second code data.